

On our return flight from San Jose Costa Rica (SJO), and climbing thru FL310, we encountered moderate to severe clear air turbulence approaching the BLU fix on the airway. This turbulence started as moderate, and progressed to severe. The autopilot was engaged at the onset of the clear air turbulence, and was trying to keep up with the aircraft, but had to be disengaged to keep it from exceeding speed limitations. This clear air turbulence happened on a clear VMC day. There were no reports from ATC or other aircraft about this clear air turbulence.

After possibly one and half minutes, the clear air turbulence ceased, and we received a call from the flight attendants stating that three of the Flight Attendants in the aft cabin were hurt. There was a Registered Nurse on board that attended the injured Flight Attendants. The physician on call was also contacted and she recommended medication. We requested priority handling with Miami Center in order to expedite our arrival into MIA.